STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street, Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – John M. Colmers, Secretary

Office of Preparedness & Response
Isaac P. Ajit, M.D., M.P.H., Acting Deputy Director

September 24, 2007
Public Health & Emergency Preparedness Bulletin: # 2007:38
Reporting for the week ending 09/22/07 (MMWR Week #38)

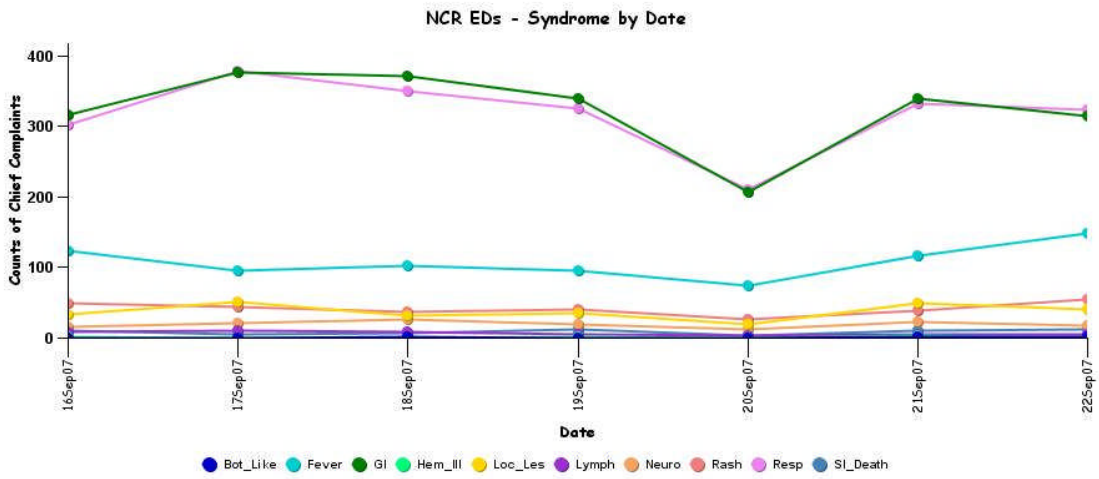
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

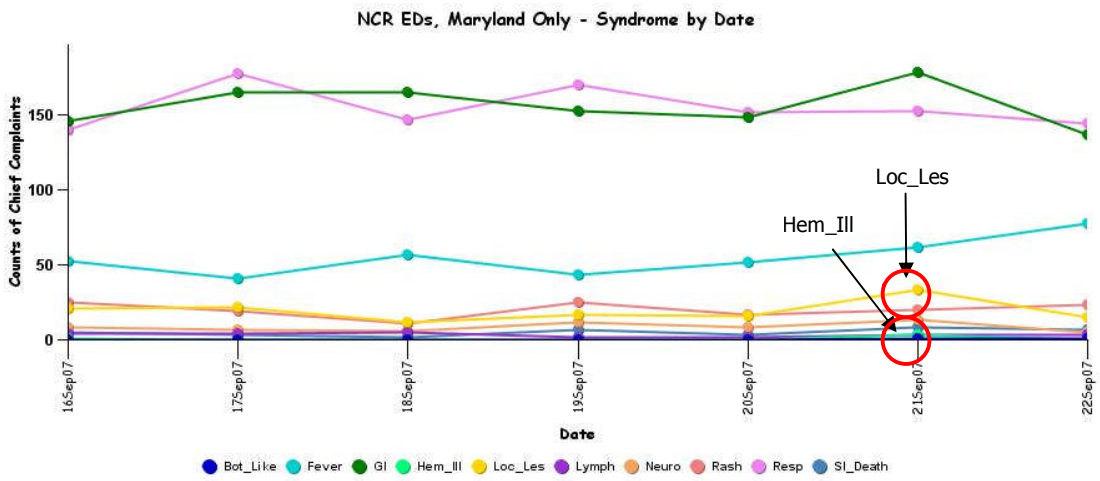
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts only. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

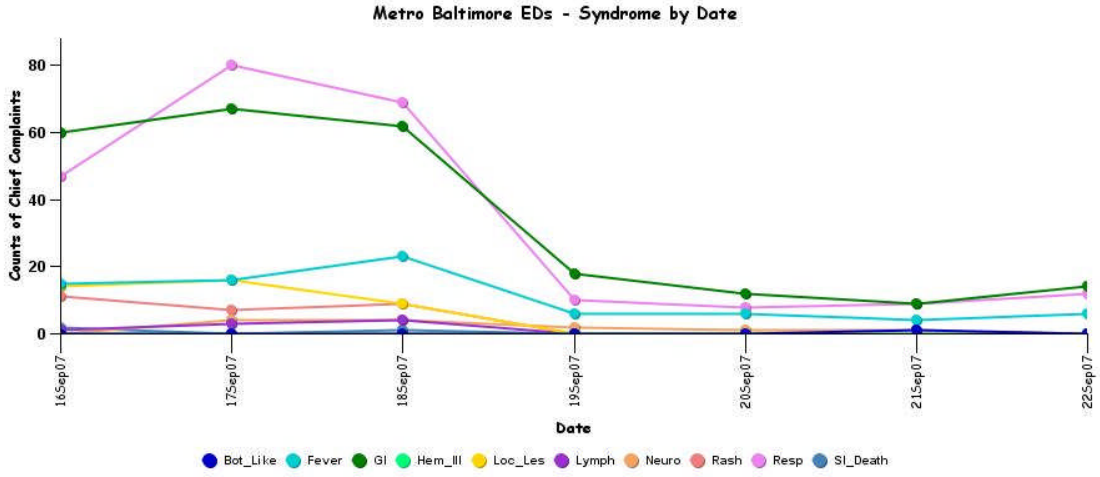
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system

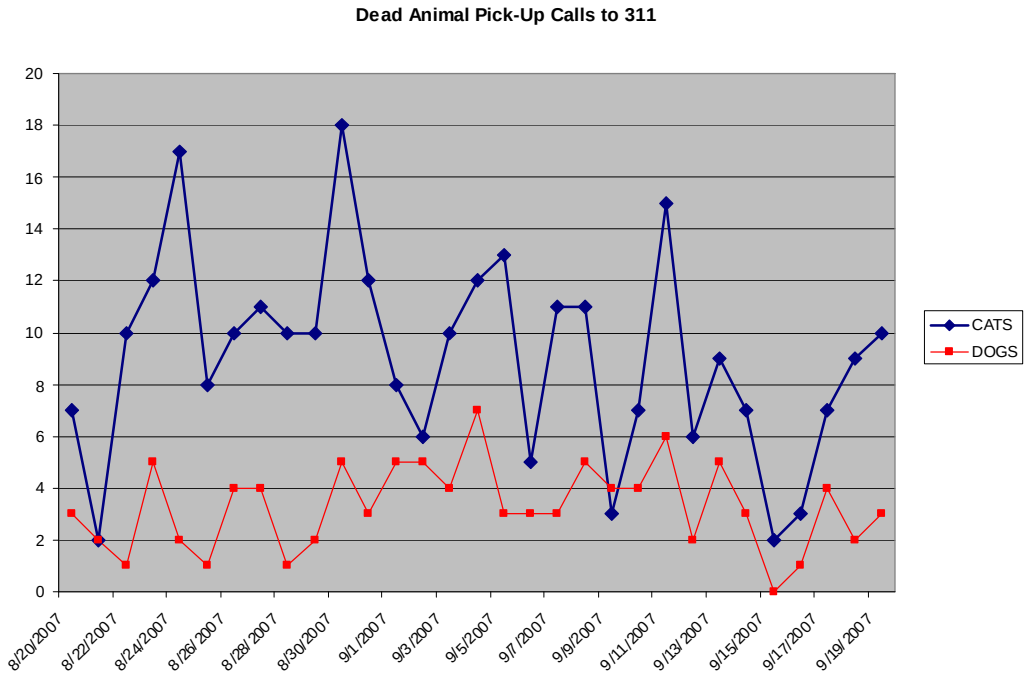


* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system



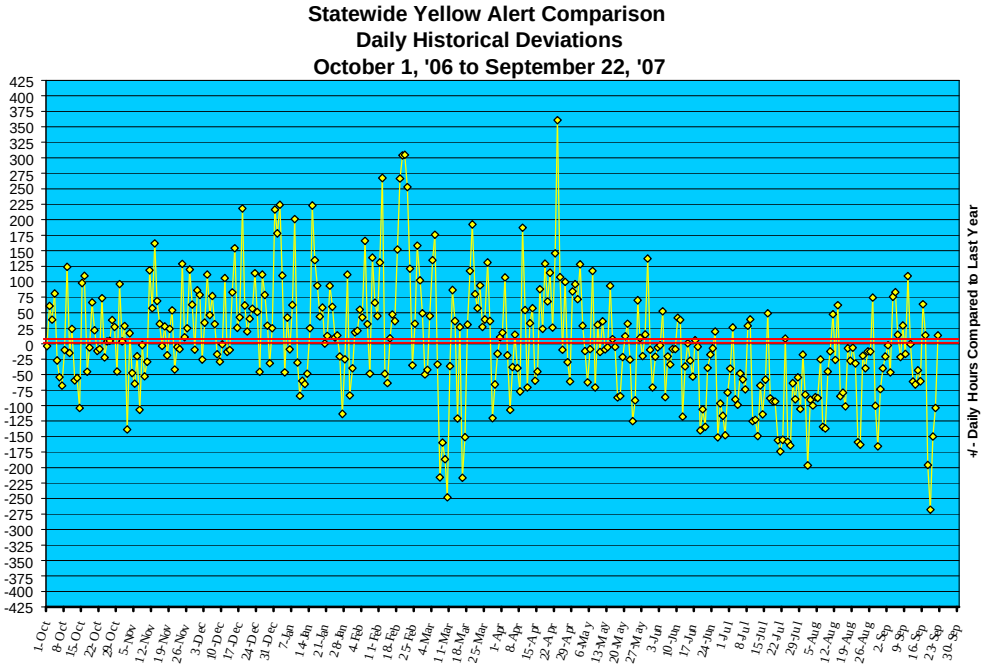
Low counts on Sept 19–22 are due in part to data transmission issues from several metro Baltimore EDs
* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/06.



REVIEW OF MORTALITY REPORTS

OCME: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in August 2007 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases:	24	0
Prior week:	20	-
Week#38, 2006:	19	1

OUTBREAKS: 2 outbreaks were reported to DHMH during MMWR Week 38 (Sep. 16- Sep. 22, 2007):

1 Gastroenteritis outbreak
1 outbreak of GASTROENTERITIS associated with a Hospital

1 Respiratory illness outbreak
1 outbreak of AFRD/PNEUMONIA associated with a School

MARYLAND SEASONAL FLU STATUS:

Seasonal Influenza reporting occurs October through May. 2 cases of influenza were reported to DHMH during MMWR Week 38 (September 16 - 22, 2007).

***Please note:** Influenza data reported to DHMH through the National Electronic Disease Surveillance System (NEDSS) is provisional and subject to further review.

PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO Pandemic Influenza Phase: Phase 3/4: No or very little human-to-human transmission/Small clusters with limited human-to-human transmission, suggesting that the virus is not well adapted to humans

US Pandemic Influenza Stage: Stage 0/1: New domestic animal outbreak in at-risk country/Suspected human outbreak overseas

*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://bioterrorism.dhmh.state.md.us/flu.htm

WHO update: As of September 10, 2007, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 328, of which 200 have been fatal. Thus, the case fatality rate for human H5N1 is about 61%.

AVIAN INFLUENZA, DUCK (China): 19 Sep 2007, China's southern city of Guangzhou has destroyed 153 320 domestic fowls in the wake of an outbreak of bird flu, local authorities said on Sep 18. The extermination of 134 384 ducks, 18 786 chickens and 150 doves was carried out in 9 villages within a radius of 3 km from the site of the outbreak, an official with the Panyu district government said. A total of 68 poultry farmers in Panyu district who have had close contact with ducks killed by bird flu have taken blood tests and medical checkups, and were found to be in good condition. The Ministry of Agriculture and the National Avian Influenza Reference Laboratory have confirmed a subtype H5N1 bird flu strain killed 9830 ducks raised in Sixian Village of Panyu District in Guangzhou City since Sep 5. The Panyu district government

announced on Sep 18 the suspension of all poultry markets within a 8 mile radius surveillance zone. Tan Yinghua, Party chief of the district, told Xinhua the district would put more pork, beef, and fish on the market to meet the needs of local consumers. As the world's largest producer of poultry, livestock, and aquatic products, China has suffered huge economic losses from outbreaks of animal diseases. It is estimated that animal diseases cost China 5.31824 billion US dollars annually. The previous reported case of H5N1 bird flu in China occurred in May 2007 in central China's Hunan Province, which killed more than 11 000 poultry with another 52 800 birds being culled. China has reported 25 human cases of bird flu since 2003, which have resulted in 16 deaths.

AVIAN INFLUENZA (Nigeria): 21 Sep 2007, Over 1052 birds have so far been culled in Panda Development Area of Nasarawa State in the wake of avian influenza (bird flu) that affected the area just as the people of the area were commended for reporting early signs of the flu. UNICEF (UN Children's Fund) field officer for avian influenza, Alhaji Bala Hassan, who visited the affected area from their headquarters in Bauchi said the efforts of the people of the area in reporting cases of sick or dead birds as well as their contributions towards the depopulation exercise was commendable. Bala who was in Nasarawa weekend and visited Kondoro and Panda district areas where the incident occurred, cautioned the people against taking sick or dead birds for granted and to ensure that poultry meat and eggs are properly cooked before consumption. He particularly advised parents to keep their children away from sick or dead birds and advised them to always imbibe the culture of washing their hands whenever they come in contact with sick or dead birds to avoid the spread of the flu. Presenting posters, pamphlets, and other educative materials on avian influenza to the district head of the area as well as the people, Bala called on them to spread the message among themselves and outside their communities so as to create awareness that would lead to the prevention of the disease. The UNICEF focal person on avian influenza control in the Ministry of Information, Mallam Abubakar Tanko, who also accompanied the UNICEF field officer to the area, advised the people to keep away from using poultry droppings as manure following the dangers associated with the confirmation of H5N1 virus in the area. The district head of Kondoro, Alhaji Muha-mmeadu Habu, thanked the UNICEF officers for their philanthropic gestures in curbing not only the flu but in the area of child survival and other programs. He also called on the state government to come to their aid in the payment of compensations due to the birds they have lost.

NATIONAL DISEASE REPORTS:

No new reports of outbreaks related to CDC Critical Biological Agents.

INTERNATIONAL DISEASE REPORTS:

CHIKUNGUNYA (Italy): 18 Sep 2007, As of Sep 13, 254 cases of potential chikungunya virus infection were identified in Emilia Romagna Region as a result of ongoing active surveillance activities. Chikungunya virus infection was confirmed by laboratory tests in samples obtained from 78 of the notified potential cases. Among confirmed cases, the most recent date of onset was Sep 4. Epidemiological data collected so far indicate that indigenous transmission might have occurred in 4 different localities. Chikungunya virus has been isolated from Aedes albopictus mosquitoes collected in the affected areas. Intense vector control activities, led by regional and local health authorities, are continuing. Upon invitation of the Ministry of Health of Italy, a team comprising experts form French institutions involved in the investigation of the chikungunya virus outbreak in La Reunion in 2006, representatives from the European Centre for Disease Prevention and Control (ECDC), and representatives of the WHO Regional Office for Europe, will be visiting regional and national health authorities starting from Sep 17. The mission will be a precious opportunity to better understand the current outbreak in Italy as well as for WHO to improve its preparedness strategy for emerging and re-emerging vector-borne diseases in the European Region. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents)
*Non-suspect case

CHOLERA (Iraq): 20 Sep 2007, Iraqi health officials confirmed the first cases of cholera in Baghdad on Sep 20, in a sign that an epidemic that has infected about 7000 people in northern Iraq is spreading south through the country's decrepit and unsanitary water system. WHO and the Iraqi Red Crescent Society said they had confirmed at least one case of cholera in Baghdad, though Iraq's Ministry of Health did not confirm it. Hospital sources said there could be at least 2 other confirmed infections, connected to a death in Kut and one in Tikrit. Officials said there was a further possible outbreak in Diyala, an area north of Baghdad, and in Kut, south east of Baghdad. The WHO has already reported an outbreak of the disease in the northern cities of Kirkuk and Sulaymaniyah, and 10 people are known to have died. But the disease is now moving from the north into more unstable areas of the country where it could be even harder to treat and contain. "It is already endemic in some parts of Iraq, but when it is growing and moving, that's when it becomes an epidemic," said Dr Naeema al-Gasseer, the WHO's representative for Iraq. Cholera is fairly simple to treat under normal circumstances, but the war in Iraq makes it far more difficult to contain. The mass displacement of the population has pushed many people into unsanitary living conditions, where food and water can become tainted with sewage and spread the cholera bacteria. The Red Crescent has said that shallow wells contaminated by sewage around Sulaymaniyah, which had at least 2 cholera outbreaks in the decades before the American-led invasion in 2003, could have set off the epidemic. But problems that have developed since the invasion, like poor control of chlorination levels, have the potential to make this outbreak more dangerous, the Red Crescent said. Officials focusing on Baghdad are trying to figure out how

to ward off an epidemic when it is too dangerous for health workers to easily move about the city. WHO officials advising the Iraqi government said Baghdad might need to set up response teams in each separate district, rather than trying to work with a centralized response unit. (Water Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

CHOLERA (Nepal): 20 Sep 2007, At least one person died on Sep 20, and over 200 people have fallen sick following an outbreak of cholera in central Nepal. A woman in her mid-30s died without receiving treatment on Sep 20, at Jutpani Village Development Committee (VDC) of Chitawan District, situated some 85 km west of capital city Kathmandu. Over 150 in Jutpani VDC and 50 in Shaktikhor and Padampur VDCs are receiving treatment in various hospitals in the district. The cholera outbreak was initially noticed in eastern part of Chitawan District on Sep 18. As all beds in the Bharatpur hospital are already packed, patients could be seen lying on floor and corridors. Local private clinics are also swamped by cholera patients. According to locals, the diarrhea had spread in an epidemic proportion after the flash floods that hit the area some days ago polluted the main sources of water in the village. (Water Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

CHOLERA (Uganda): 20 Sep 2007, An outbreak of cholera in the West Nile district of Nyadri (in Arua) has killed one person and left 8 others hospitalized. "Our investigation shows that the outbreak came from the DR Congo (DRC) and some cases were contracted during a funeral of a person who died of the disease," Dr Aldo Pariyo, the officer in charge of Maracha Health sub-district said on Sep 19. He said that 5 of the 8 cases reported at Maracha Health Centre were Congolese. Olufe and Oleba sub-counties that border the DRC are said to be the most affected areas. Meanwhile, reports from Hoima that the district is also worried of a possible outbreak of the disease, especially in areas around the shores of Lake Albert. The district director of Health Services, Dr Joseph Ruyonga, said his office was still verifying information concerning a reported outbreak. "The Nkondo LCI (local council, smallest administrative unit) chairperson has reported to my office that the disease has killed 2 of his residents," Mr. Ruyonga said. (Water Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

BRUCELLOSIS, BOVINE, HUMAN (Georgia): 20 Sep 2007, Brucellosis has spread among cattle in the Lagodechi region of Georgia, bordering on Azerbaijan, APA's Georgia bureau reports. The disease has already infected 26 people, who are being treated. A decision was made to cull ill animals. The spokesman for the State Veterinary Service at the Azerbaijan Agriculture Ministry, Yolchu Khanveli, told the APA that importation of beef from Georgia to Azerbaijan is not expected to be banned. Khanveli said that brucellosis has also been observed among cattle in Azerbaijan and emphasized that, if beef is imported from any country, it is put under quarantine for 40 days and examined. If any disease is revealed, importation of beef will be banned. (Brucellosis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

EBOLA HEMORRHAGIC FEVER (Democratic Republic of Congo): 21 Sep 2007, A suspected death from Ebola virus has been reported in a new province in eastern Democratic Republic of the Congo where more than 170 people are now feared to have died from the disease in 4 months. The new case was in East Kasai (Kasai Oriental), a central province neighboring the West Kasai (Kasai Occidental) where the latest outbreak was first reported. There have been many deaths at a health centre in the East Kasai town of Mwene-Ditu in recent days and samples from one that showed Ebola-like symptoms are being studied in Kinshasa, said Benoit Kebelo, a doctor heading a government emergency response team. Mwene-Ditu is around 112 miles south east of Kananga, capital of West Kasai province, where 5 Ebola cases and one of shigellosis were confirmed on Sep 11. Kebolo said everyone should remain cautious about the cause of the latest death. He added that "increasing awareness" of Ebola among the population was leading to many reported symptoms that in most cases are not linked to the outbreak. 2 more patients died from Ebola and related illnesses this week around Kampungu, around 155 miles North West of Kananga, and the centre of the new epidemic, Kebolo said. These bring to 172 the number of confirmed dead out of 381 reported cases of patients suffering symptoms from various illnesses including Ebola, shigellosis, which is similar, acute malaria or gastroenteritis, according to a new World Health Organization toll. Symptoms of the epidemic- high temperature, bloody diarrhea, visible hemorrhaging- were first seen on Apr 27 in the Kampungu region of West Kasai. Around Kampungu, a WHO survey of the cases shows a marked increase in the number of ill between Aug 22-31, with an average of 15 cases per day and a peak of 12 deaths on Aug 27. In early September the spread of the diseases slowed. Over the past 6 days it fell to between one and 2 new registered cases a day, with only a maximum 2 deaths per day. "It's encouraging, but we must still be prudent in analyzing this reduction," Kebelo warned. There is no certainty that the epidemic has ended, he added. It could be a remission during the incubation period for Ebola (15-21 days) "before a new explosion," he cautioned. Meanwhile, a team of 10 WHO officials, including a virologist, 3 epidemiologists, and Canadian specialists in setting up laboratories, have arrived in Kananga and will be operational next week analyzing samples. (Viral hemorrhagic fevers are listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

Q FEVER (England): 21 Sep 2007, An outbreak of a rare illness called Q fever, which is caught from infected livestock, is being investigated in the Cheltenham area of Gloucestershire. A total of 28 cases have been identified among local people, most requiring hospital treatment. Victims can suffer severe pneumonia while others show no ill effects. Some people recover without treatment. The infection is often caught by close contact with farm animals but it can be also be blown through the air. A team led by the Health Protection Agency is looking at how residents may have caught the infection. Epidemiologist Dr Deirdre Lewis said: "Q fever is generally a mild infection but we know that it can cause complications, so we've been keen to look into this as thoroughly as we can. We've not had any reported cases of Q fever in Gloucestershire residents since 2002, so seeing 28, mostly from the Cheltenham area, is unusual." The evidence so far

points to the period of risk being more than 3 months ago. Most of the patients, who are aged between 40 and 70, are said to be recovering well after falling ill earlier in the summer. "I appreciate that news of this outbreak will surprise some local people," said Dr Lewis. "They can be reassured that we're working hard to investigate it." (Q Fever is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

*Cases and outbreaks will be cited for suspect level with regards to suspicion of BT threat. Therefore, cases and outbreaks will be categorized as "Determined BT", "Suspect" or "Non-suspect".

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://bioterrorism.dhmh.state.md.us/

****

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information is a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

Questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

Heather N. Brown, MPH
Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
201 W. Preston Street, 3rd Floor
Baltimore, MD 21201
Office: 410-767-6745
Fax: 410-333-5000
Email: HBrown@dhmh.state.md.us